Figure 1

Battery 2	Switch 5	LED 10

Data in → Scanner 20 → Digitizer 30 → Processor 40

Commands → Receiver/Transmitter 70
Data out ←

Memory 50 | ID # 60

Figure 2

Battery 2	Switch 5	LED 10

Data in → Scanner 20 → Digitizer 30 → Processor 40
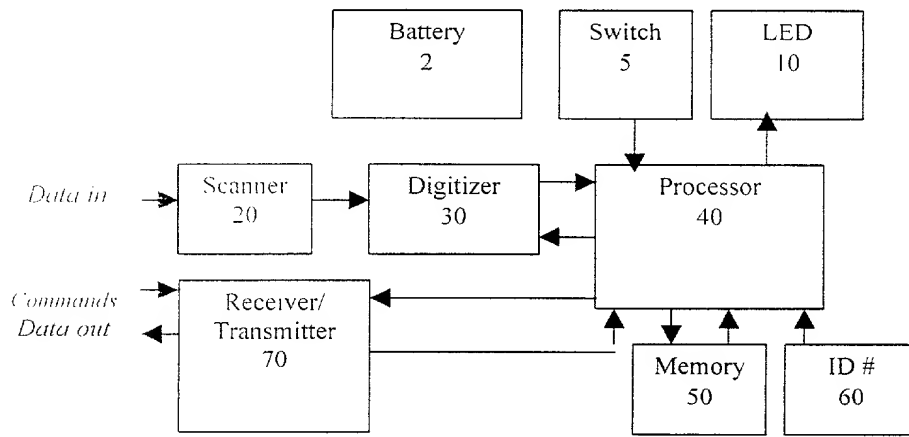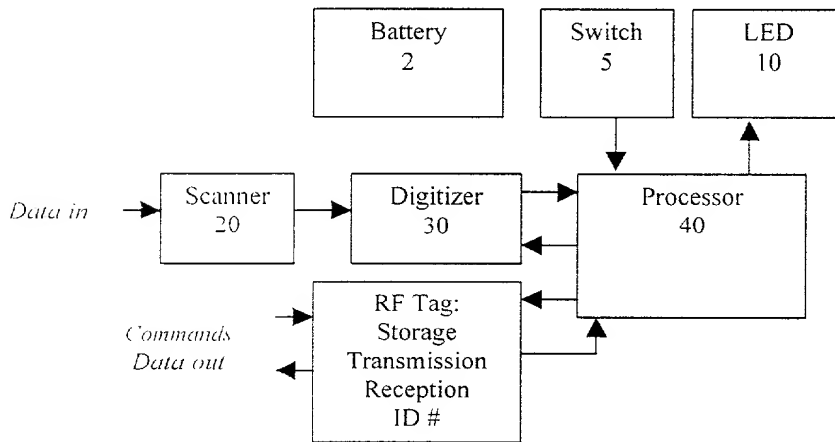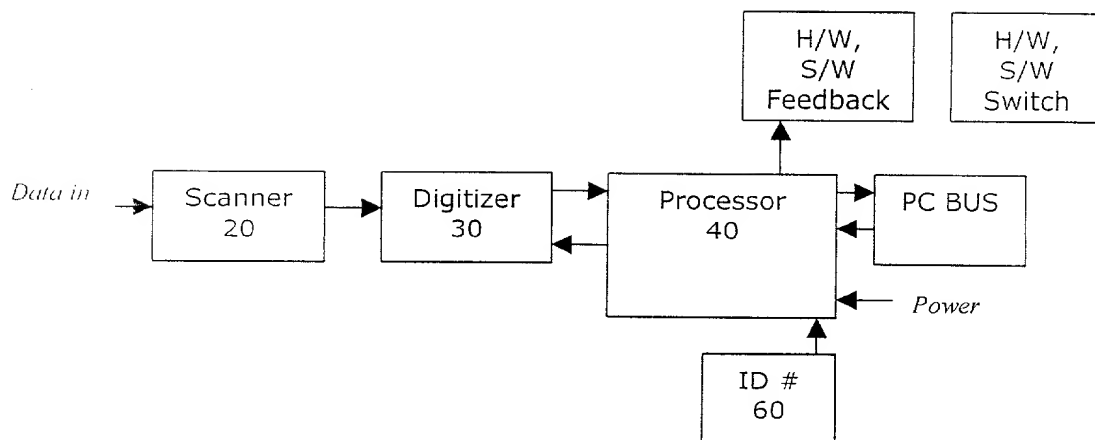
RF Tag:
Storage
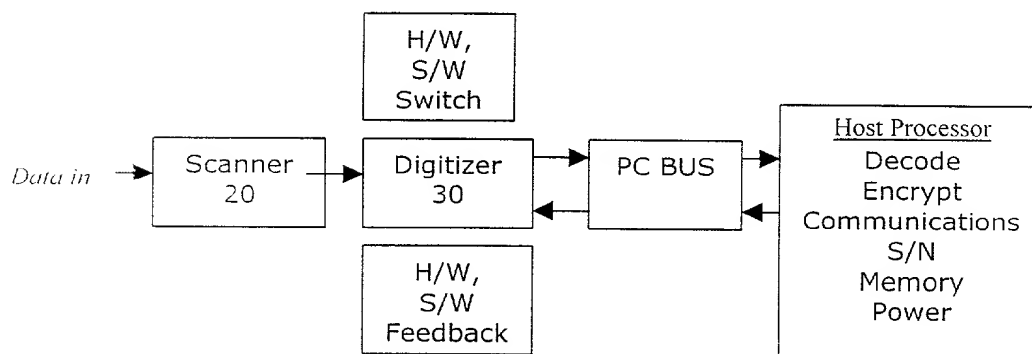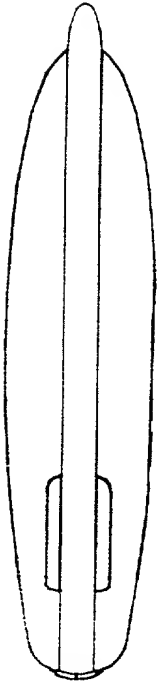Transmission
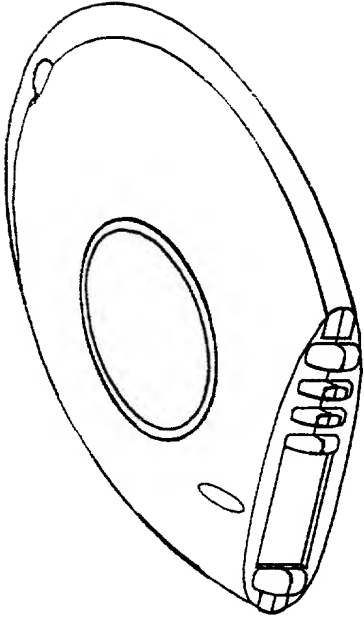Reception
ID #
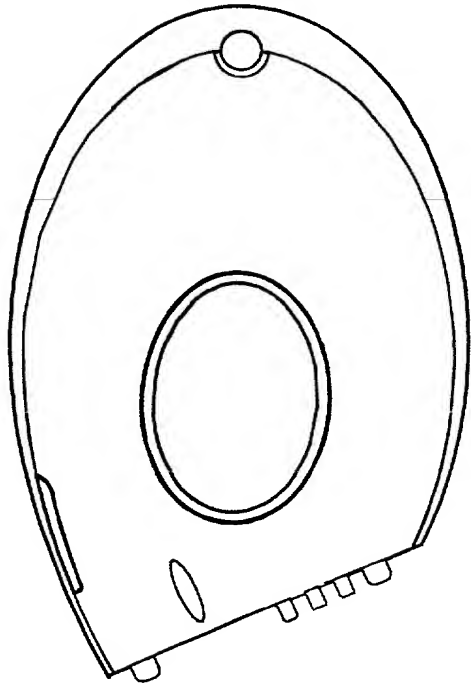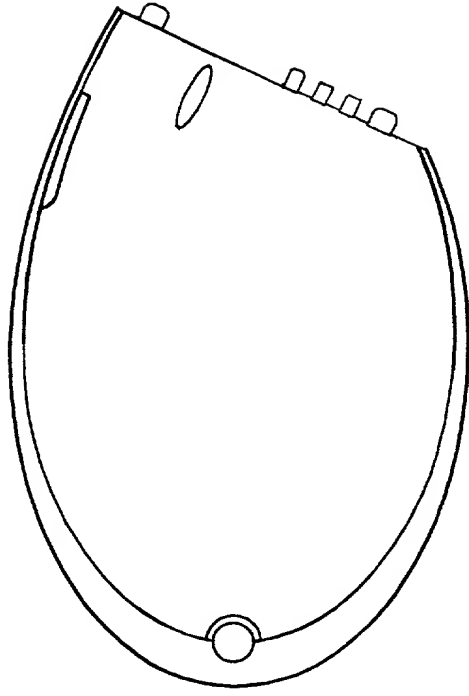
Commands →
Data out ←

Figure 3

Figure 4

Figure 5

Figure 6A

Figure 6B

Figure 6C

Figure 6D

Figure 6F

Figure 6H

Figure 6E

Figure 6G

Figure 7

Figure 8

MDATA ⇄ Transmit/Receive ⇄ DOCK

Keyboard

CAP/NUM/SCR

HOST

Figure 9

Figure 10C

Figure 10B

User activates MDATA to initiate a scan

↓

User exposes MDATA to Symbology

↓

MDATA scans and digitizes Symbology

↓

MDATA evaluates scanned data to determine symbology protocol

↓

MDATA decodes symbology to ASCII format

↓

MDATA stores ASCII data to a local memory

↓

MDATA activates Feedback for succesful scan

Figure 11

User inserts MDATA into Dock and presses MDATA switch

MDATA optical output activates dock

Dock interupts keyboard input and sends hot key sequence

PC/Client Software acknowledges

Dock signals MDATA to send data

MDATA sends Information Record

PC/Client Software acknowledges

MDATA sends data record

PC/Client Software acknowledges

Yes More data records?

NO

MDATA sends empty record

PC/Client Software checks data records received count against number listed in Information Record

Counts correct?

yes   *NO*

PC/Client sends good transfer signal   PC/Client sends bad transfer signal

MDATA erases data and powers off *yes* Second transfer attempt? *No*

Figure 12

Figure 13

```
                    ┌──────────────┐
                    │ Scan Button  │
                    │   Pressed    │
                    └──────┬───────┘
                           │
                           ▼
                    ┌──────────────┐
                    │   Power Up   │
                    │ Electronics  │
                    └──────┬───────┘
                           │
        ┌──────────────────┼
        │                  ▼
        │           ┌──────────────┐
        │           │   Attempt    │
        │           │communications│
        │           │ with another │
        │           │    device    │
        │           └──────┬───────┘
        │                  │
        │                  ▼
        │              ◇ Established ◇   Yes   ┌──────────────┐      ┌──────────────┐
        │              ◇ Communicat ◇ ───────▶│Download data │─────▶│  Shut down   │
        │              ◇   ions ?   ◇         │to other device│     └──────────────┘
        │                   No                └──────────────┘
        │                   │
   No   │                   ▼
◀───────┤               ◇ Timed out ? ◇
        │                   │  Yes
        │                   ▼
        │           ┌──────────────┐
        │           │ Active scan  │
        │           │     mode     │
        │           └──────┬───────┘
        │                  │
        │                  ▼
        │              ◇ Successful ◇   Yes   ┌──────────────┐      ┌──────────────┐
        │              ◇  decode ?  ◇ ───────▶│  Good Read   │─────▶│  Shut down   │
        │                   No                │Feedback active│     └──────────────┘
  Yes,  │                   │                 │for preset time│
  reset │                   ▼                 └──────────────┘
  timer ◀──────────── ◇   User actively ◇
        │              ◇    scanning?    ◇
        │                   No
        │                   │
   No   │                   ▼
        └─────────────  ◇ Timed out ? ◇  Yes  ┌──────────────┐
                                        ─────▶│  Shut down   │
                                              └──────────────┘
```

200

250

210

230

220

240

Figure 14

200

260

1

Figure 15
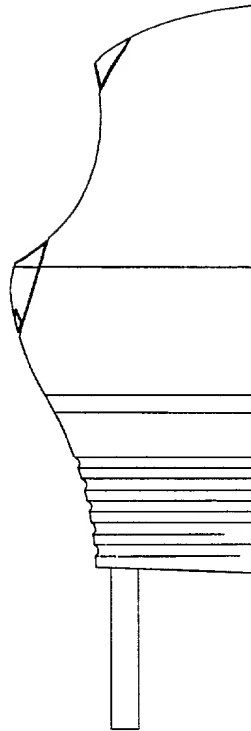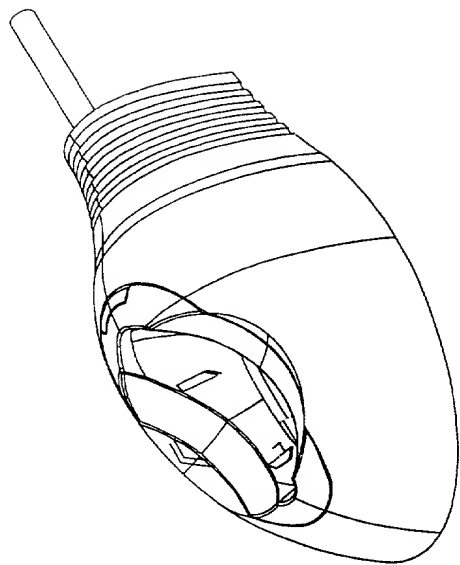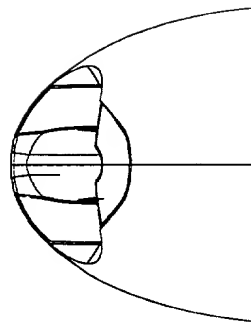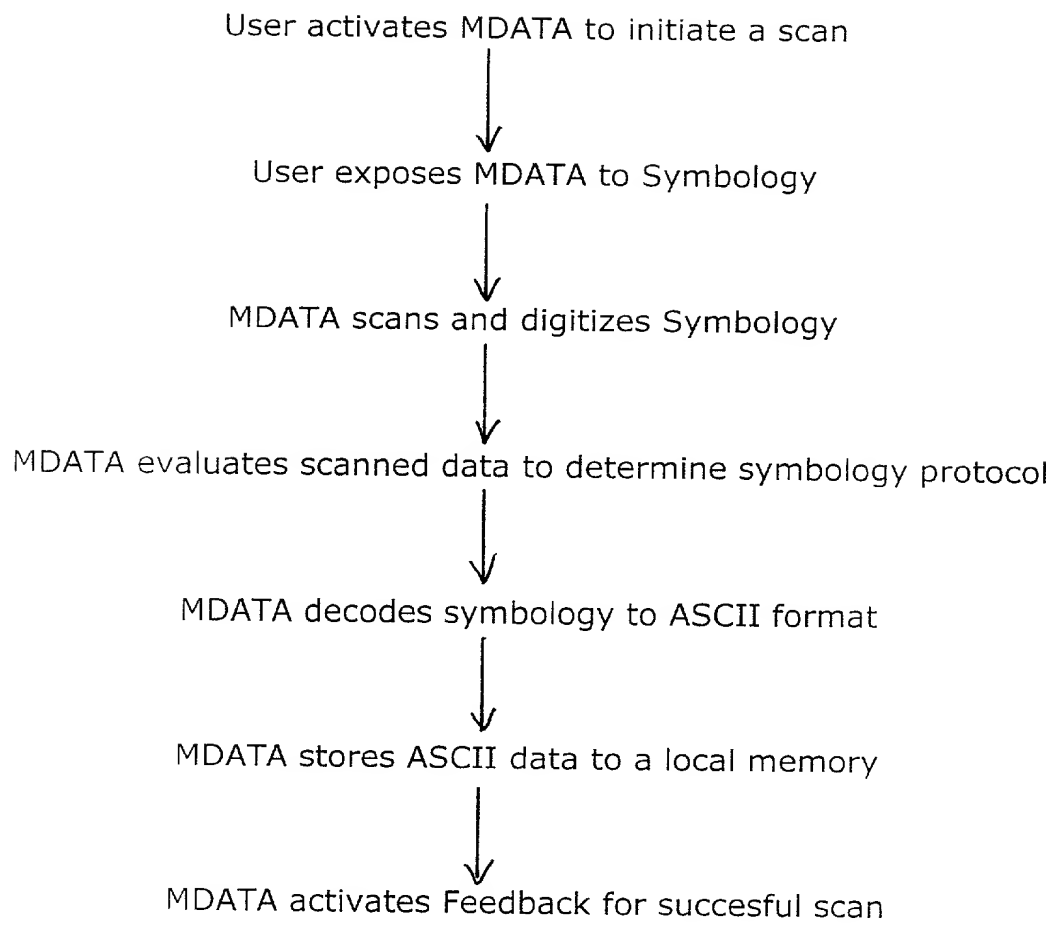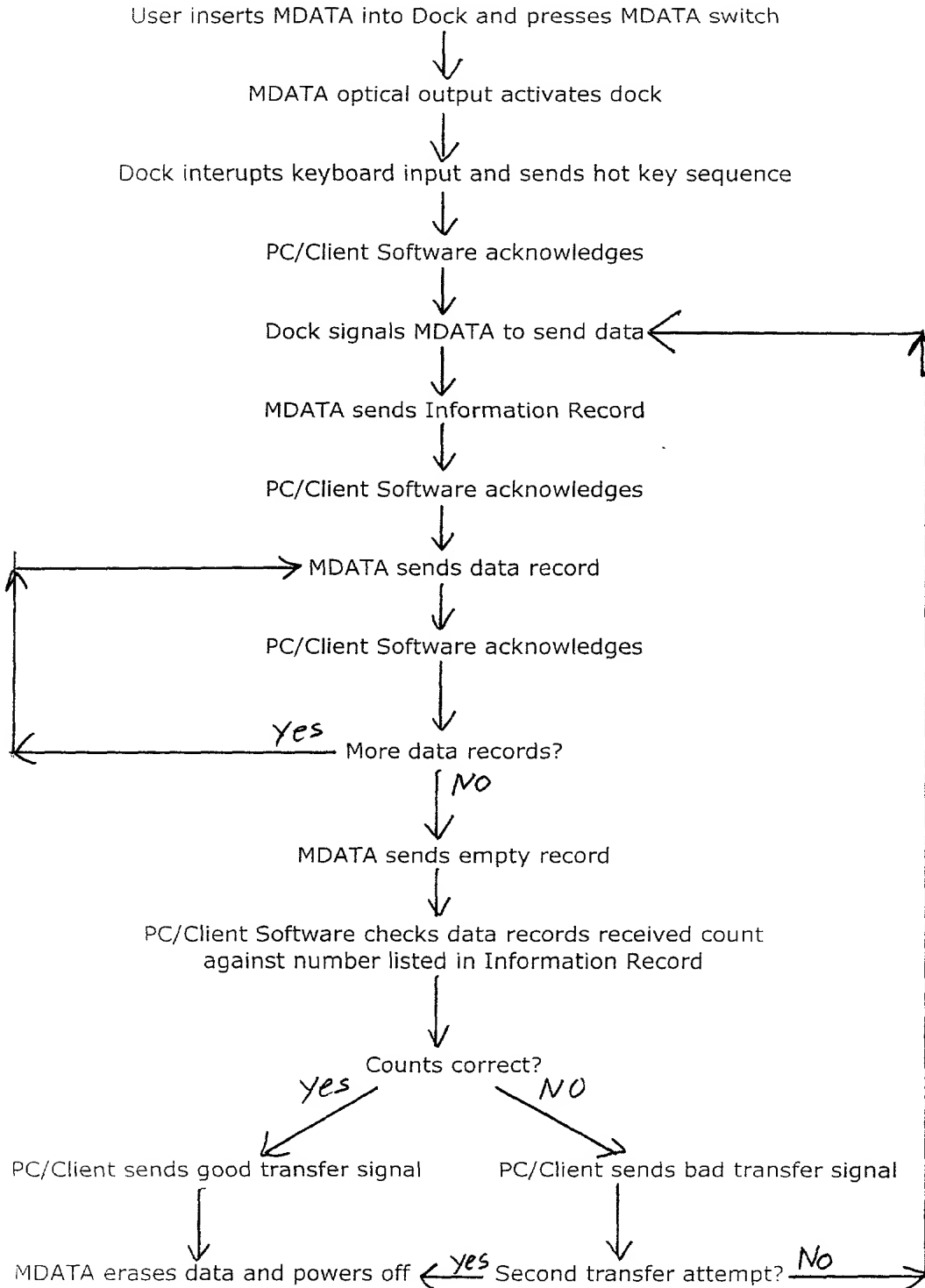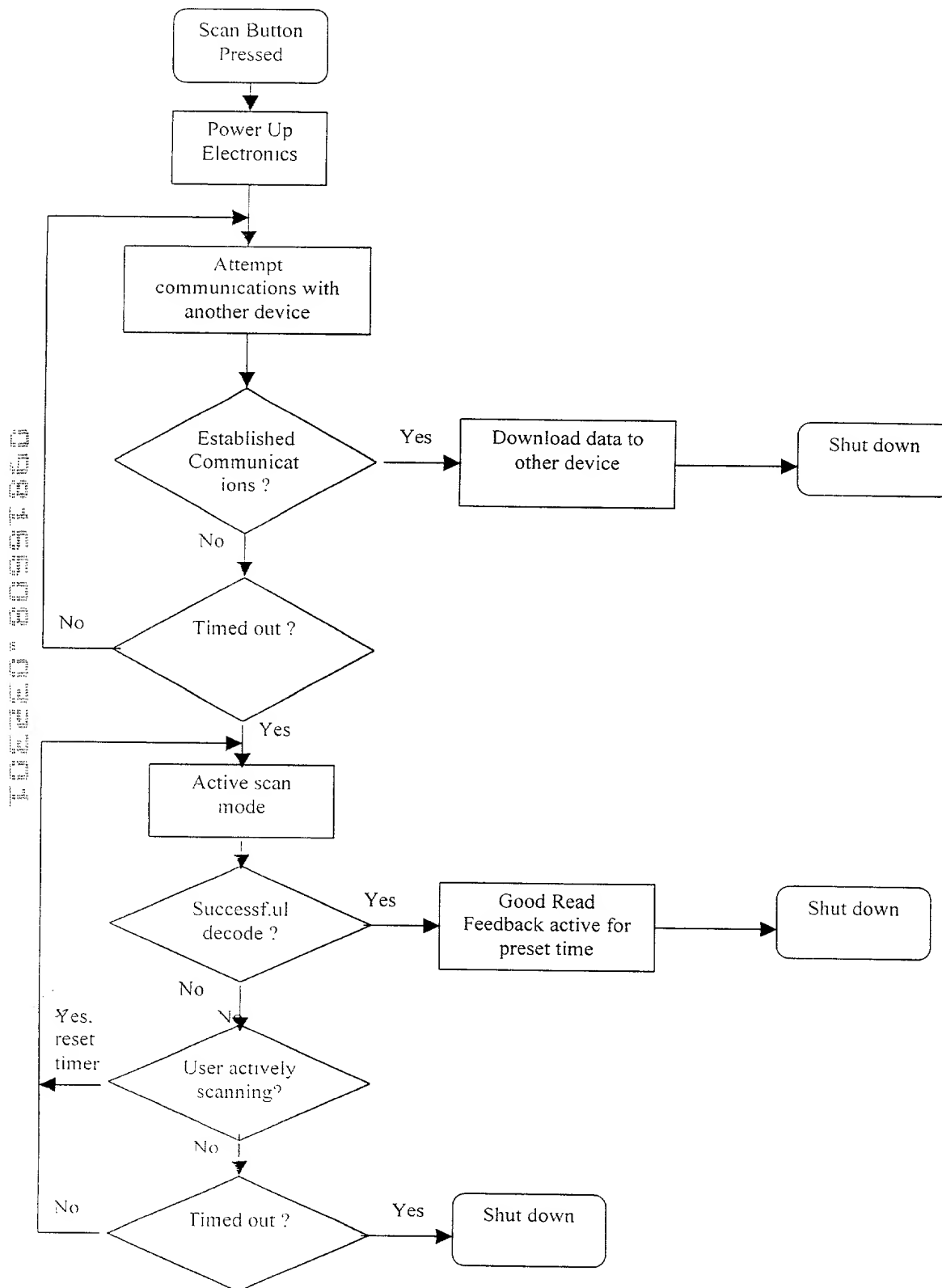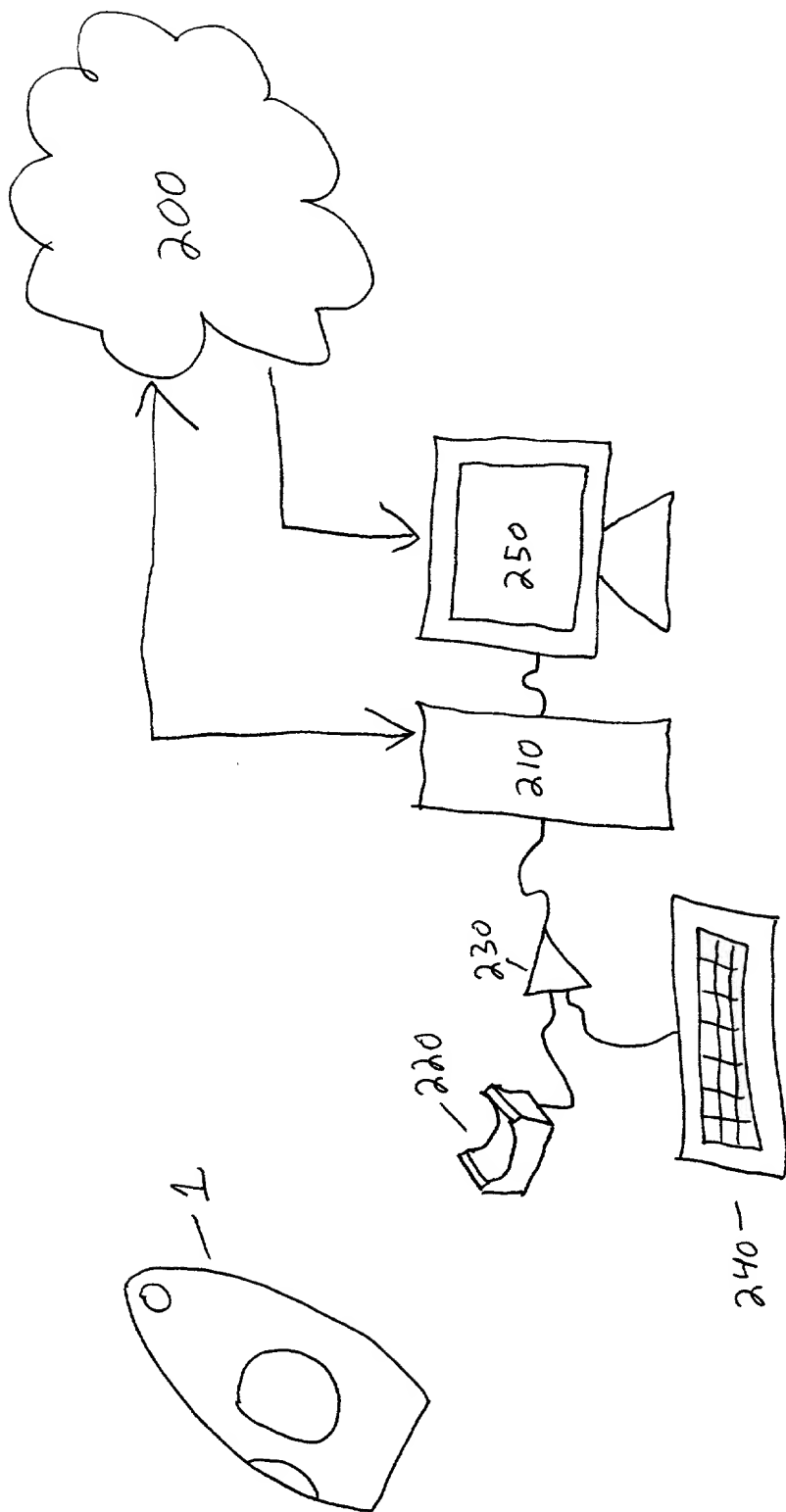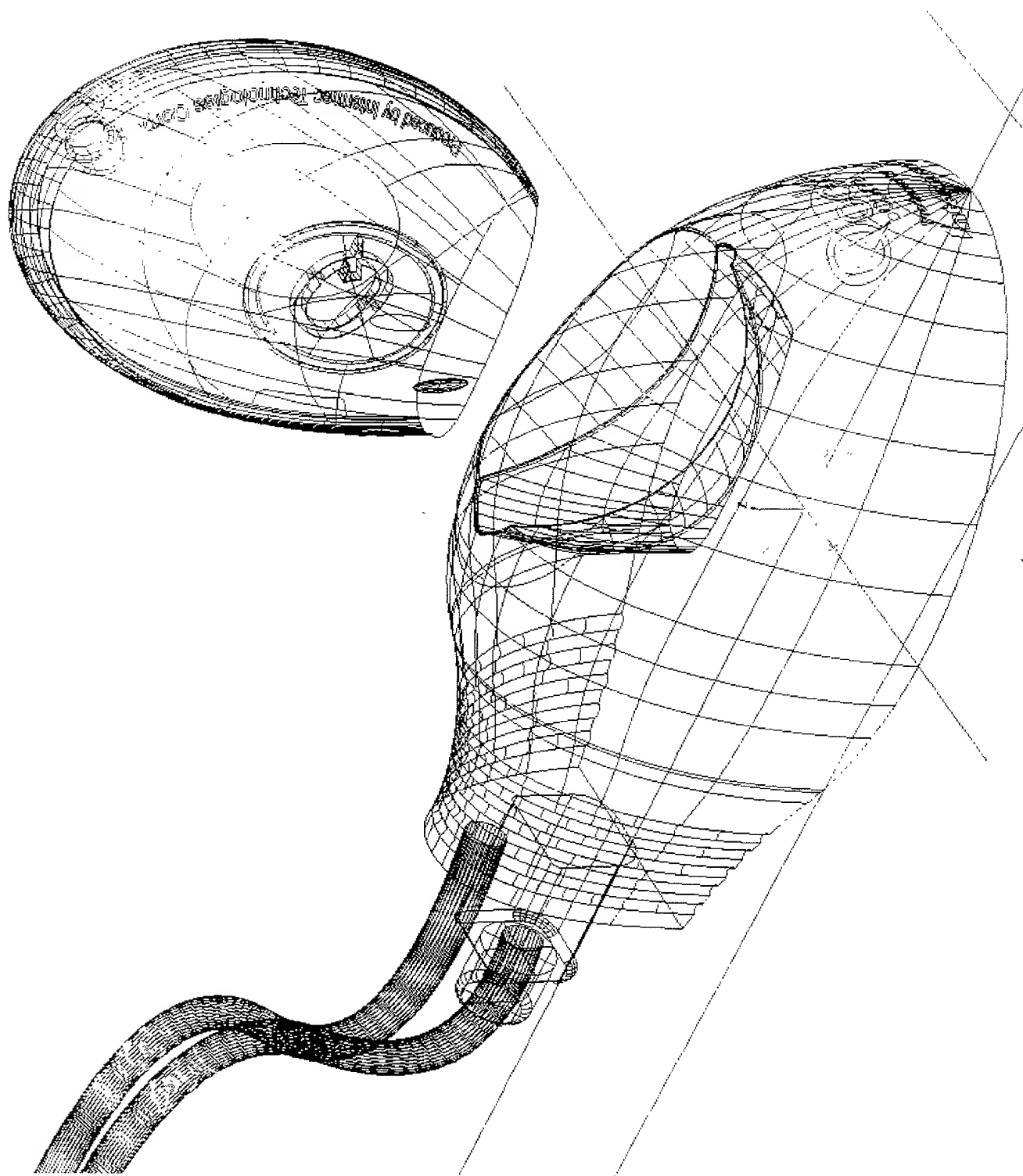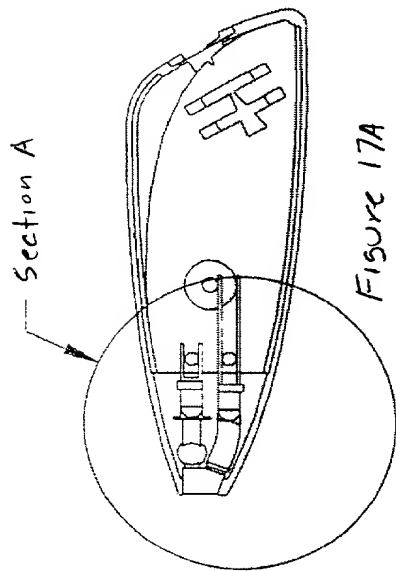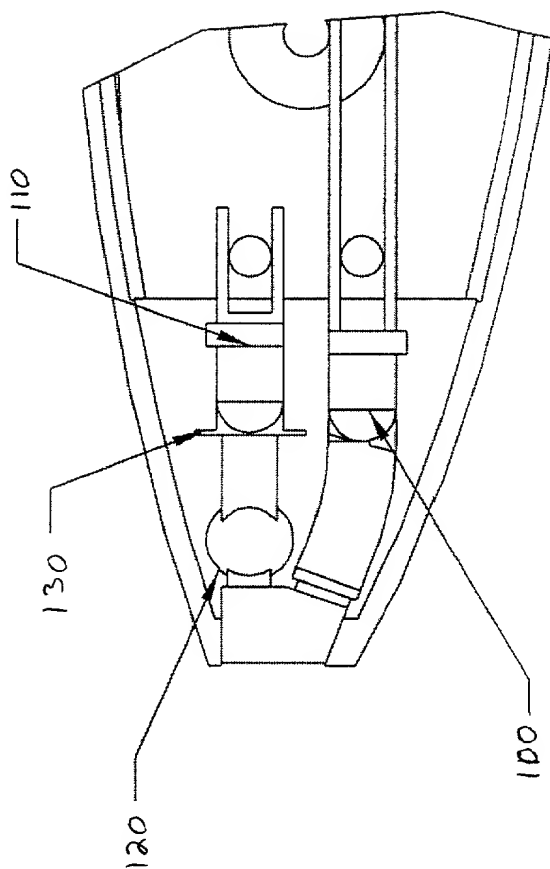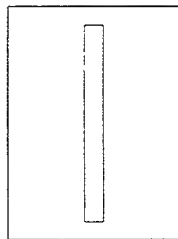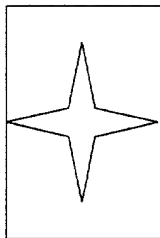
Figure 16

Section A

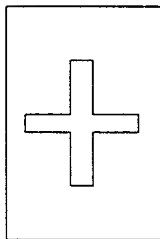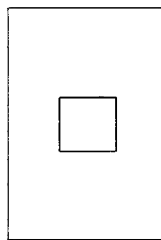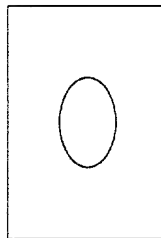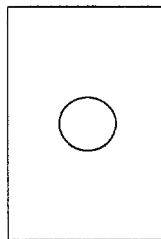Figure 17A

Figure 17B

Figure 17C

110

130

120

100

Figure 18

Figure 19A

Figure 19B

Figure 19C

Figure 19D

Figure 19E

Figure 19F